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(54) PROCESS FOR APPLYING  
ALUMINUM-CONTAINING COATING USING  
INORGANIC SLURRY MIX

## (57) Abstract:

PROBLEM TO BE SOLVED: To coat an internal passage of an article such as a gas turbine airfoil with an aluminum-containing coating.

SOLUTION: To accomplish this coating process, a coating slurry of a mixture of a carrier component of water and a hectorite clay or a bentonite clay, together with a solids component of a source of aluminum, a halide activator, and an oxide dispersant, is prepared. The coating slurry is applied to the internal passage of the gas turbine airfoil (22) and dried. The gas turbine airfoil (22) and the applied coating slurry are heated to form an aluminum-containing coating bonded to the internal passage of the gas turbine airfoil (22). Excess coating material is removed from the article internal passage.

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